Remarks

Claims 1, 4, 5, 6, 9, 11, 14, 15, 16, 19, and 20 are amended herein. Claims 3, 13, and 18 were previously cancelled. Claims 1-2, 4-12, 14-17 and 19-20 remain pending in the Application. No new matter has been added as a result of the Claim amendments.

Objections to the Specification

In paragraph 2 of the present office action (mailed 9/25/2006), extensive correction to the specification is recommended to clarify the use of the terms such as "storing a counter" versus storing a "value from such a counter". Applicant has made one amendment to specification to clarify the difference between a code block frequency counter and code/instructions for incrementing a code block frequency counter. Support for this amendment can be found at least at lines 17-22 of page 10, and in block 152 of Figure 9 which shows instructions/code for incrementing a code block frequency counter being added to a block of translated code. Applicant submits that further correction is not warranted.

The office action contends that the "[c]ommon accepted meaning for a counter is that it is a software/hardware instrument to track/record value or count as such value/counter is being incremented or decremented relative to a mostly automated counting process." Applicant submits that this is an overly narrow definition. The present office action seems to contend that the objected to terms may not be interchangeably used without resulting in confusion. Applicant respectfully disagrees.

10991880-1 Examiner: Vu, T. Serial No.: 09/898,351

Applicant submits that one skilled in the art at the time would be aware that a counter, count, and value of a counter are often are one in the same. For example, a counter/count may be a mechanism, such as a variable, with a value that is incrementable or decrementable. As such, one may interchangeably refer to incrementing the count, incrementing the counter, or incrementing the value of the counter without any confusion ensuing. Likewise one may interchangeably refer to storing the counter, storing the value of the count, storing the count, or storing the value of the counter without imprecision or confusion as a result of such interchangeable use. Accordingly, Applicant respectfully submits that there is nothing linguistically improper about the objected to usage in the specification, and as such, requests that any remaining objection to the specification be withdrawn.

Claim Objections

In paragraph 3 of the current office action (dated 9/25/2006) objection was made to informalities in the use of the terms counter, counting, and counting means within the claim language. Applicant has amended Claims 1, 4, 5, 6, 11, 14, 15, 16, 19, and 20 to claim a "code block frequency counter" rather than just a "counter." Applicant submits that no such informalities exist with regard 6-10 and that the current use of the objected to terms in these claims is proper and understandable. Accordingly, withdrawal of the objection is requested.

-12-

10991880-1 Examiner: Vu, T. Serial No.: 09/898,351

In paragraph 4 of the current office action (dated 9/25/2006) objection was made to "a grammatically correct yet semantically confusing" phase in Claims 1, 11, and 16.

Amendments have been made to the objected to phrase in Claims 1, 11, and 16 to clarify the objected to time-relationship between the elements recited. Accordingly, withdrawal of the objection is requested.

Rejection under 35 U.S.C. §101

According to paragraphs 5 and 6 of the current office action, Claims 1, 6, 11, and 16 (along with dependent Claims 2, 5, 7, 10, 12, 15, 17, and 20) are rejected under 35 U.S.C. §101 because the invention is directed to non-statutory subject matter. The office action indicated that in these claims, "there appears to be missing action or some logic as to how the cached counter can be used in relation to the eviction process." Claims 1, 6, 11, and 16 have been amended herein to recite a rational for the eviction and a rational for the storage of the code block frequency counter/counting means. Applicant submits that the elements of the claims are recited in a fashion that makes clear both their interaction with one another, and a useful result (analysis of a computer program). Support for the amendment may be found at least at page 15, line 15 - page 16 line 7, Figure 8, and page 11, line 21 - page 12, line 6. Accordingly, withdrawal of the rejection under 35 U.S.C. §101 is requested.

Rejections under 35 U.S.C. §112, First Paragraph

In paragraph 8 of the current office action, Claims 1, 6, 11, and 16 have been rejected due to their recitation of, "wherein said counter is not required to be added to

-13-

10991880-1 Examiner: Vu, T. Serial No.: 09/898,351

said block of code in said code cache". The objected to language has be removed herein. As such, withdrawal of these rejections to Claims 1, 6, 11, and 16 under 35 U.S.C. §112 is requested.

In paragraph 8 of the current office action, Claim 6 has been rejected due to the lack of evidence that the counter value being stored in the storage area is related to "the most recently executed block of code". Claim 6 has been amended herein to recite a "means for maintaining a storage area for storing said counting means of said plurality of blocks of code that are <u>not</u> most recently executed" emphasis added. Support for this amendment may be found at least in Claim 6 as originally filed. Additionally, the omission of the word "not" appears to be an informality which occurred during transcription of the claims in response to the office action of 6/17/2004. Accordingly, withdrawal of this rejection to Claim 6 (and likewise Claims 7-10) under 35 U.S.C. §112 is requested.

In paragraph 8 of the current office action, Claim 9 is rejected as reciting the copying of a block of code. Amendment has been made to Claim 9 such that it recites, "means for copying said counting means, related to said least recently executed block of code" emphasis added. Support for such amendment is found at least on page 11, lines 6-7. Accordingly, withdrawal of the rejection to Claim 9 under 35 U.S.C. §112 is requested.

10991880-1 Examiner: Vu, T. -14- Serial No.: 09/898,351

Rejections under 35 U.S.C. §112, Second Paragraph

In paragraph 10 of the current office action claims 1, 11, and 16 are rejected "as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention." Specifically, the recited timeframe associated with the phrase "code previously executed on said code cache after said... code is evicted from said ... cache", was described as being unclear. In response to a related objection to these claims, amendment has been made to clarify this time-relationship. Applicant submits that this amendment in response to the related objection obviates the rationale for this rejection. As such, Applicant requests withdrawal of the rejection to Claims 1, 11, and 16 under 35 U.S.C. §112, second paragraph.

35 U.S.C. §102 Rejections

Anticipation Requirements

According to MPEP 2131, "to anticipate a claim, the reference must teach every element of the claim." Further, as cited in MPEP 2131, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Additionally, according to MPEP 2131, "The identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim. In re Bond, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

10991880-1 Examiner: Vu, T. -15- Serial No.: 09/898,351

Claims 1-2, 4-7, 11-12, 14-17 and 19-20

In the Office Action, the Examiner rejected Claims 1-2, 4-7, 11-13, 14-17 and 19-

20 under 35 U.S.C. 102(e) as being anticipated by Burton et al., US Patent No.

6,748,865 (hereinafter Burton). Applicant has reviewed the cited reference and

respectfully submits that the present invention is not anticipated by the Burke reference

for the following rationale.

The Examiner is respectfully directed to independent Claim 1, which recites in

part (emphasis added), "...using a code block frequency counter for tracking each time

said block of code is executed on said code cache, wherein additional code for

incrementing said code block frequency counter is dynamically added to said block of

code as said computer program is executed...".

Claims 6, 11, and 16 recite similar limitations and were rejected with the same

rationale. Claims 2, 4, and 5 which depend from Independent Claim 1, Claim 7 which

depends from Independent Claim 6, Claims 12, 14, and 15 which depend from

Independent Claim 11, and Claims 17, 19, and 20 which depend from Independent

Claim 16 recite further limitations to the claimed invention.

Applicant respectfully submits that the rejection of Claims 1, 6, 11 and 16 under

35 U.S.C. §102(e) is not proper, as the cited reference does not meet the requirements

set forth for anticipation (shown above) by the MPEP. Specifically, the Applicant

submits that the Burton reference fails to anticipate the present invention and to meet

10991880-1

-16-

Serial No.: 09/898,351

Examiner: Vu, T.

the requirements for anticipation because it does not teach every element of Claims 1, 6, 11, and 16 as required by the MPEP. Claim 1, for example, recites, "...using a code block frequency counter for tracking each time said block of code is executed on said code cache, wherein additional code for incrementing said code block frequency counter is dynamically added to said block of code as said computer program is executed ...", (emphasis) added. However, per Applicant's understanding, the Burton reference does not offer any teachings (either express or inherent) regarding, "... using a code block frequency counter for tracking each time said block of code is executed on said code cache".

Per Applicant's understanding the Burton reference is silent regarding each time said block of code is "executed", and does not teach or suggest this limitation.

Applicant understands that Burton may teach "...a value... that indicates both how frequently the entry is accessed and the time of last access" (see, e.g., col. 3, lines 10-12 of Burton). However, this is very different than, and does not teach or suggest, "...tracking each time said block of code is executed on said code cache", (emphasis added) as is recited in Claim 1 and similarly in Claims 6, 11, and 16.

Additionally, Applicant submits that the Burton reference fails to teach or suggest,
"... wherein additional code for incrementing said code block frequency counter is
dynamically added to said block of code as said computer program is executed ...",
(emphasis) added.

10991880-1 Examiner: Vu, T. -17- Serial No.: 09/898,351

Therefore, Applicant submits that the Burton reference fails to teach every element of Claim 1 (and similarly Claims 6, 11, and 16), and as such, Claims 1, 6, 11, and 16 are not anticipated by the Aguilar reference.

Accordingly, Claims 2, 4, and 5 which depend from Independent Claim 1, Claim 7 which depends from Independent Claim 6, Claims 12, 14, and 15 which depend from Independent Claim 11, and Claims 17, 19, and 20 which depend from Independent Claim are believed to be patentable over the Burton reference for the reasons discussed above and due to their dependence from allowable base claims.

Rejection under 35 U.S.C. §103(a)

Claims 8-10

In the Office Action, the Examiner rejected Claims 8-10 under 35 U.S.C. 103(a) as being unpatentable over the combination of Burton and one of ordinary skill in the art. Applicant has reviewed the cited reference and respectfully submits that the present invention is patentable over the combination of the Burke reference in combination with one of ordinary skill in the art, for the following rationale.

The Examiner is respectfully directed to independent Claim 6, which recites in part (emphasis added), "...means for counting each time one of said plurality of blocks of code is executed, wherein additional code for incrementing said code counting means is dynamically added to said block of code as said computer program is executed...".

10991880-1 Examiner: Vu, T. -18- Serial No.: 09/898,351

Claims 8-10 which depend from Independent Claim 6, recite further limitations to

the claimed invention.

As described above with regard to the rejection under 35 U.S.C. §102(e), the

Burton reference does not teach or suggest either, "...means for counting each time one

of said plurality of blocks of code is executed" or "wherein additional code for

incrementing said code counting means is dynamically added to said block of code as

said computer program is executed...", as are recited in Claim 6 (emphasis added).

The inclusion of the teachings of one of ordinary skill in the art is not relied upon

by the office action to teach or suggest these claimed limitations, and at any rate does

not cure these deficiencies of the Burton reference. As such, the Applicant respectfully

submits that Claim 6 is not rendered obvious by the combination of Burton in view of

one of ordinary skill in the art, and is therefore in condition for allowance.

Accordingly, the Applicant also submits that Claims 8-10 which depend from

allowable Independent Claim 6 are allowable by virtue of their dependence from an

allowable base claim.

10991880-1 Examiner: Vu, T. -19-

Serial No.: 09/898,351

Conclusion

In light of the above amendments and remarks, Applicant respectfully request allowance of Claims 1-2, 4-12, 14-17 and 19-20.

The Examiner is invited to contact Applicant's undersigned representative if the Examiner believes such action would expedite resolution of the present application.

Respectfully submitted,

WAGNER, MURABITO & HAO LLP

Dated: $\frac{12}{27} \frac{3}{3} \frac{C}{C}$

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10991880-1 Examiner: Vu, T. -20-

Serial No.: 09/898,351